

CLAIMS

What is claimed is:

1. A light emission device comprising:
 - 5 a lead frame comprising a first lead frame segment and a second lead frame segment;
 - a light source coupled to said first lead frame segment;
 - a wire bond coupled to said light source and coupled to said second lead frame segment; and
 - 10 an epoxy cast encasing said light source, said wire bond, and a portion of said lead frame.
2. The light emission device as recited in Claim 1 wherein said first lead frame segment comprises a first recess such that said light
15 source resides at least partially within said first recess.
3. The light emission device as recited in Claim 1 wherein said first lead frame segment comprises a second recess such that said epoxy cast is anchored to said first lead frame segment.
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4. The light emission device as recited in Claim 2 wherein said first recess is a reflector cup.
5. The light emission device as recited in Claim 1 wherein said
25 epoxy cast comprises a shaped epoxy portion.
6. The light emission device as recited in Claim 1 wherein said lead frame comprises plating.
7. The light emission device as recited in Claim 1 wherein said
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epoxy cast comprises a color tinting.

8. The light emission device as recited in Claim 1 wherein said epoxy cast is operable to diffuse light from said light source.

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9. The light emission device as recited in Claim 1 further comprising a second wire bond coupled to said first lead frame segment and said light source.

10 10. The light emission device as recited in Claim 5 wherein said shaped epoxy portion is a dome shape.

11. The light emission device as recited in Claim 1 wherein said light source is a light emitting diode die.

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12. A method for generating a light emission device, said method comprising:

coupling a light source to a first lead frame segment of a lead frame, said lead frame further comprising a second lead frame segment;

20 coupling a wire bond to said light source and said second lead frame segment; and

encasing said light source, said wire bond, and a portion of said lead frame in an epoxy cast.

25 13. The method as recited in Claim 12 wherein said first lead frame segment comprises a first recess such that said light source resides at least partially within said first recess.

30 14. The method as recited in Claim 13 wherein said first recess is a reflector cup.

15. The method as recited in Claim 12 wherein said encasing comprises forming a shaped portion of said epoxy cast.

5 16. The method as recited in Claim 12 further comprising dying said epoxy cast with a color tinting.

17. The method as recited in Claim 12 further comprising diffusing at least a portion of said translucent epoxy cast.

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18. The method as recited in Claim 12 further comprising coupling a second wire bond to said first lead frame segment and said light source.

15 19. The method as recited in Claim 12 wherein said light source is a light emitting diode die.

20. A light emission device comprising:

a lead frame comprising a first lead frame segment and a second lead frame segment;

20 a light emitting diode coupled to said first lead frame segment, said first lead frame segment comprising a first recess such that said light source resides at least partially within said first recess;

a wire bond coupled to said light source and coupled to said second lead frame segment; and

25 an epoxy cast encasing said light emitting diode, said wire bond, and a portion of said lead frame, said epoxy cast comprising a shaped epoxy portion.

21. The light emission device as recited in Claim 20 wherein said first lead frame segment comprises a second recess such that said epoxy

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cast is anchored to said first lead frame segment.

22. The light emission device as recited in Claim 20 wherein said first recess is a reflector cup.

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23. The light emission device as recited in Claim 20 wherein said shaped epoxy portion is incident to said light source.

24. The light emission device as recited in Claim 20 wherein said lead frame comprises plating.

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25. The light emission device as recited in Claim 20 wherein said epoxy cast comprises a color tinting.

26. The light emission device as recited in Claim 20 wherein said epoxy cast is operable to diffuse light from said light source.

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27. The light emission device as recited in Claim 20 further comprising a second wire bond coupled to said first lead frame segment and said light source.

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28. The light emission device as recited in Claim 20 wherein said shaped epoxy portion is a dome shape.

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